Eugenics, Euthenics and Love---

How They Go Hand in Hand

The Fourth
of a Series of Monographs
on the Improvement of
the Human Plant

HENRY SMITH WILLIAMS, M. D., LL. D.
Editor

ISSUED BY
THE LUTHER BURBANK SOCIETY
SANTA ROSA, CALIFORNIA

COPYRIGHT 1914, BY LUTHER BURBANK PRESS

FOREWORD

Heredity is more of a factor in human life than in plant life—more of a menace—more of a hope.

And nothing in the world of living things responds so quickly to new environments as the human mind—child and adult.

The great value of Luther Burbank's work lies in blazing the path of the application of the forces of heredity and environment to the improvement of the human plant—to the production of better races, better nations, better communities, better families, better individuals.

Having completed the classification of Mr. Burbank's Records as applied to plant life, The Luther Burbank Society now proceeds to the larger task of interpreting the forces of heredity and environment toward the betterment of the human plant through a series of monographs, the titles of which are given on the last page, the fourth of the series appearing herewith.

22503243237

EUGENICS, EUTHENICS AND LOVE-- HOW THEY GO HAND IN HAND

WHEN the word "eugenics" first came before the public a few years ago, there were strong objections to its supposed implications, on sentimental grounds.

Much of the opposition has died away in recent years, showing a very remarkable modification of public sentiment. But even now it is not unusual to hear the feasibility of any attempted application of eugenic principles challenged, on the ground that Nature, having been in the business of matchmaking from time immemorial, is very well able to carry on this business without interference from the scientific students of heredity.

Such objections are reminiscent of the thought of an elder day, when the current phrase about marriage being made in Heaven was taken more than half seriously, and when the entire attitude

of mind of the public toward the question of the relations of the sexes was far more Puritanical than it is at present.

Many causes have conspired to change public sentiment; and the very fact that the name "eugenics" has made its way so rapidly, proves that the intelligent moiety of the public has become prepared to give recognition to the idea that man may conceivably exercise a directive influence in the breeding of his own race such as he has all along exercised in the breeding of the animals that he has domesticated.

The argument that Nature herself is the ideal matchmaker is seen on the slightest critical inspection to be utterly fallacious; in particular since it has come to be known that hundreds of thousands of children are born into the world foredoomed to disease or to defective mentality by the mismating of their parents.

In the older conception, heredity was fatalistic. So long as it was believed that all the characteristics of a parent are transmitted to all his children, it seemed inevitable that the sins of the parents must be visited upon the children, in strict accordance with the biblical mandate. But the new knowledge of Mendelian heredity makes it clear that the hereditary factors in the germ-plasm of an individual may be potent or impotent in

their tangible influence on the next generation, according to the combinations that are made with the hereditary factors of the other parent.

We have seen, for example, that factors for mental deficiency or for susceptibility to consumption, even though present in the germ-plasm of an individual, may be utterly unable to make themselves tangibly manifest if that individual mates with one in whose germ-plasm the factors for normal mentality only and for resistance to consumption are present.

Thus the mandate that seemed to condemn the offspring may in many cases be rendered nugatory by the right selection of marriage partners.

Here, then, is a specific instance in which a definite knowledge of the laws of heredity might serve to determine whether the offspring of an individual should be normal or defective; where, in a word, the principles of eugenics might be practically applied with benefit to a fraternity of individuals. And if it be objected that such an application of cold scientific principles seems to rob marriage of all romance, it is perhaps an adequate and comprehensive answer to point out, as I have been moved to do on various occasions, that there is nothing appealingly romantic about a brood of epileptic or neurotic or imbecile children.

It is possible, however, to supplement this suggestion with the assurance that, in general, the application of eugenic principles to the mating of human beings would not by any means necessitate the supplanting of the old traditional method of matchmaking, but would only serve as a supplementary procedure, aimed at the perfecting of a method which must be admitted to lack something of the ideal.

Nature As Eugenist

In point of fact, it requires but the most casual knowledge of the subject to convince one that nature herself is the original eugenist, and that the motives that actuate individuals under the spell of the god of love are essentially eugenic motives.

To substantiate this suggestion, it is only necessary to call attention to the fact expressed by the common saying that opposites attract. This means that a person is drawn toward one of the opposite sex whose predominating tendencies correspond to his subordinated ones.

Note, as practical illustrations, how the tall man is attracted by the small woman, blonde by brunette, genius by mediocrity. It is even matter of common experience that the most virtuous young women are often fascinated by opposite moral traits in their male associates; while, con-

trariwise, the most vicious men would always choose virtuous helpmates if they could.

These propensities have long been recognized, and they have been explained as representing a tendency of nature to avoid extremes and keep near to a happy mean. It has been observed that extreme development in any direction leads to instability, and it is everywhere accepted that a well-rounded development is, on the average, preferable to a highly specialized development in one direction. But the real significance of the observed tendency of opposite physiques and temperaments to attract each other is more clearly explicable than ever before since a knowledge of Mendelian heredity has given clues to its true interpretation.

The fact seems to be that what we term Mendelian heredity represents Nature's incessant attempt to improve the race.

It is an observed fact that physical strength and vigor are dominant factors; hence the offspring of a strong individual and a feeble one are likely to be strong. It is obviously desirable, then, from a eugenic standpoint, that weak individuals, if they are to mate at all, should mate with strong ones. And nature has all along provided that this should take place, through establishing the natural affinity of weak for strong and of strong for weak just referred to.

It is matter of every-day observation that women of a masculine type are attracted to more or less effeminate men; and, contrariwise, that men of the most virile type are drawn to women who are the embodiment of femininity. And the most coldly logical student of scientific eugenics must applaud these inherent preferences.

In a word, then, it may be said that the new science of eugenics does not come forward as a revolutionary force, but only as a supplementary force. In general, the study of scientific heredity has sufficed to show the logicality of spontaneous love, rather than to suggest its illogicality. But this verdict must be modified to the extent of urging that it may be possible for the student of heredity to point out individual instances in which a scientific analysis reveals impediments to what otherwise might be a thoroughly eugenic and desirable mating.

In other words, the province of eugenics at the present stage of its development is, as has been suggested in an earlier monograph, not so much to determine whom an individual should marry, as to show, on occasion whom he or she should not marry. The definite implications and applications of this principle will appear as we proceed. A clue to them is given in the statement that eugenics is recognized as having two quite different aspects, a negative and a positive aspect.

Negative eugenics aims to prevent the birth of the unfit; positive eugenics aims to bring about the birth of the fit.

We must consider each of these subjects independently, but it may fairly be said at the outset that negative eugenics has far wider present-day application and is of more immediately practical import to our race than positive eugenics.

The Breeding of the Unfit

It is a familiar observation everywhere today that the better classes of citizens as a rule have fewer children than the less desirable classes.

A striking illustration of this is furnished by some statistics recently collected by Professor Cattell, of Columbia University, showing that the families of a large number of the more distinguished scientific men in America consist, on the average of less than two members. And this observation is fairly in accord with the general observation, according to which the members of the community that should be looked to, from a eugenic standpoint, to propagate the species, are the ones who have the smallest families.

Contrariwise, it is matter of equally familiar observation that the people of the slums of our cities, the recent immigrants representing the lower orders of European population, and the defective and criminal classes, are vigorous and prolific breeders.

This, obviously, amounts to saying that increase of population is largely promoted by the less desirable, rather than by the more desirable, members of the community.

Whereas all evolutionary progress in the past has been due, we are led to believe, largely to natural selection of the fittest members of the animal and vegetable populations as the propagators of the species, mankind is now making the experiment of artificial selection in which the survival of the unfit becomes the outstanding feature.

It is as if Mr. Burbank were to select a colony of cross-bred plants the ones that showed the least desirable qualities, and were carefully to preserve the seed of these, destroying the seed of the more desirable members of the colony. It needs no profound knowledge of plant breeding to predict what must come to pass were this plan to be followed in the orchard or field or garden. No one will for a moment suppose that Mr. Burbank could have produced his remarkable new varieties of plants by such a method. No one doubts that the application of such a method would result in the rapid retrogression of even the best varieties, so that they would presently be represented by a degenerate progeny.

It is equally little in doubt that a breeder of thoroughbred horses or of special varieties of dogs

or chickens or pigeons would work havoc in the ranks of his pedigreed stock were he to encourage the breeding of inferior members and restrict the breeding of superior ones.

No one doubts that the same laws of heredity apply to plants, to animals, and to the human race. How, then, can we doubt that the present customs of human society, in which the less fit members of the community are by far the most prolific, must tend to encourage racial degeneration?

Seemingly there can be no difference of opinion on this question. But serious differences arise when we proceed to the natural inquiry as to what may best be done to change the exisiting conditions.

The statement that it is desirable to increase the prolificness of the better classes and to restrict the fecundity of the inferior and defective classes, considered as an abstract proposition, will pass unchallenged.

But whenever the attempt is made to suggest specific means through which these ends may be attained, such suggestions are sure to be met with violent opposition.

Nevertheless, it is incumbent upon us, in the present connection, to endeavor to view the situation without sentimentality, and from the standpoint of the student of heredity.

In particular, we are called upon to make application, as best we may, of the principles of plant development that are revealed by a study of Mr. Burbank's work, in their bearing on the breeding of the human plant. And when we view the matter from this standpoint, it would appear that there are at least a few specific propositions that may be urged with a fair measure of assurance.

Restricting the Recundity of the Unfit

First and foremost among these is the belief that the notoriously unfit members of the community, as represented by criminals, the insane, and the mentally defective, should on no account be permitted to have progeny.

These defectives represent a recessive element in the human germ plasm. And all our modern studies make it increasingly clear how difficult it is to eliminate a recessive trait from the strains of any race organisms. To be sure, a recessive quality disappears altogether in the first filial generation when mingled in the germ-plasm with the antagonistic and dominant quality. But it not only reappears tangibly in a certain proportion of the offspring of the second generation, but it also remains as a latent factor in the germ-plasm of two out of three of the progeny of that generation who give no outward evidence of its presence.

Such, it will be recalled, is the characteristic feature of Mendelian inheritance, and when we consider the facts from the present point of view, it might fairly be questioned whether the terms dominant and recessive might not better have been reversed. It is far easier to fix a recessive quality, because its tangible manifestation proves the absence of the corresponding dominant factors. But we have no way of telling that any organism showing a dominant quality does not carry the opposite recessive factors dormant in its germ-plasm.

So far as we can judge, there is no limit to the number of generations through which the factors for a recessive quality may be conveyed in a state of latency or impotence, and yet may become active and make themselves manifest through a chance mingling with germ-plasm conveying similar recessive factors in the same state of latency.

If we correctly understand the matter, recessive characters are characters that are relatively old in the evolutionary sense, and dominant characters are those that are relatively new. In each and every case where antagonistic qualities are matched against each other, there is reason to believe that the newer character will tend to manifest the phenomena of dominance, and the older character the phenomena of recessiveness.

The entire Mendelian formula might be said to express nature's receptiveness toward innovation on one hand, and her tendency to hold fast to what which has been proved good on the other hand.

An organism that has acquired a new character mates with an organism in which the same character is of an older type. The progeny all give outward manifestation of the new character. But their progeny show the recurrence of the old character in one case in four, and two other members of the four carry the factors for this quality as a recessive element in their germ-plasm. If the new character is beneficial to the species, the individuals showing it (who in the second generation, it will be recalled, outnumbered their fellows of the same fraternity three to one) will thrive and propagate their kind, and the individuals having the new quality will increase rapidly in number.

But meantime there is always a possibility that the new character may be beneficial only under local conditions or for a limited period; so nature is by no means minded to renounce the old character all at once. Generation after generation, she provides that the factors for the recessive traits shall be carried forward, and that a certain proportion of the individuals of each generation shall

be "mixed dominants", whose offspring will have representatives showing the old character. So even when the new character is a highly beneficial one, the old character still tends to recur and to fight for recognition.

But if, on the other hand, the new character is one that is not beneficial, the individuals that show it are quickly weeded out, and only the recessive members of the fraternity remain. In other words, a new or dominant character must be advantageous to its possessor—or at all events not detrimental—or it is quickly eliminated, because there is no such thing as the carrying forward of this character as a latent element in the germ-plasm. But the old, and therefore recessive character may be carried forward in the germ-plasm generation after generation, for the very reason that it is not outwardly manifested, and therefore does not handicap the individual in whose germ-plasm it rests.

Now we have seen that certain notable defects of the human organism, which are manifested in mental deficiency or insanity, act as recessive traits in inheritance. The same thing is true of the allied defects that are the foundation of criminality. We are led to infer, then, that these conditions of mental and moral obliquity represent earlier stages of human evolution. The individuals who manifest

these defects in any given generation, are those whose ancestors have mated in such an unfortunate way as to preserve the recessive character either as a patent or a latent factor in their germ-plasm. In effect, the mentally and morally deficient classes of today belong to a remote generation of the past. The hereditary factors that are responsible for their mental equipment have come down unchanged from remote ancestors who lived under conditions of barbarism in which the traits that we now describe as aberrant or defective were a part of the normal equipment of the race.

In the long stretch of intervening generations, new traits have been developed and old traits modified, but these traits, which represent the higher attributes of our mental and moral natures, while they have proved dominant to the older barbaric traits, have not been able to eliminate the old traits altogether from the germ-plasm of the race. So now and again there appears an individual in which the recessive traits are patent; and it merely evidences the force of the laws of Mendelian heredity with which we have become familiar to note that these recessive individuals breed true to their recessive quality of mental and moral deficiency.

Theoretically, we should expect that when two of these recessives are mated, their offspring would be recessives.

And the observations of the alienists and criminologists in recent years prove the correctness of the pre-conception. When two mental defectives are mated, their offspring are all defectives. Of course we can momentarily submerge the defective strain by mating the recessive individual with a normal individual. But the progeny all carry, submerged in their germ-plasm, the recessive factors. Even though themselves outwardly normal, they represent tainted stock, and the taint will make itself manifest sooner or later in their progeny.

Logically, then, there would seem to be no reason why such tainting of a stock should be knowingly permitted. There would seem to be no reason why a recessive individual of this type should be permitted to vitiate the germ-plasm of the race. So long as the recessive quality is latent, we can do nothing directly to eliminate it; but when it becomes patent in an individual case, opportunity is afforded to dam back permanently that particular stream of recessive germ-plasm.

And the way in which this can be effected, obviously, is by sterilization of the individual who manifests the defect.

Still holding to the biological point of view, there would seem to be no question that a proper regard for the welfare of future generations de-

mands that all mentally and morally defective individuals of unequivocal type should be sterilized. The rule should apply, it would seem, to all subnormal children; to the insane of every type; and to all persons whose lack of moral control is such as to have led them to commit infractions of the social order that rank as felonies.

So comprehensive a programme for the elimination of recessive germinal factors for mental and moral traits will doubtless seem little less than appalling to many readers. But there seems no escape from the conclusion that such a restrictive programme would be of enormous benefit to the coming generations. The lessons of heredity are futile unless we are prepared to act upon them. And there is no reason why action should stop with half way measures in regard to the classes just named. The imbecile, the insane person, and the criminal, are undesirable progenitors of members of a civilized community. In the interests of the community they should be scientifically restrained from incurring the obligations of parenthood.

That, seemingly, is the first and perhaps the most unequivocal lesson in negative eugenics that may be drawn from the modern studies of heredity.

The Question of Restricting Marriages

When we turn to the other aspect of the subject that has been most widely exploited—the question, namely, of putting legal restrictions on the marriage of persons suffering from various diseases—we find ourselves on much more debatable ground.

Some rather plausible laws have been put on the statute books of various states in the past two or three years, making it obligatory for persons seeking a marriage license to show a medical certificate giving them a clean bill of health with regard to one or two transmissible diseases. The purpose of such laws is obviously commendable, but it may seriously be doubted whether public opinion has yet been educated to the point where it will give the laws adequate support. We have advanced a long way in recent years, but there is still a large measure of reticence regarding the discussion of topics directly involved in measures of this character. The futlity of attempting to prevent the union of young persons who have decided to marry is matter of common knowledge.

Moreover, a really comprehensive law that prevented the marriage of all incompetents would fail of its ultimate object, in that it would mainly result in substituting illegitimate children for legitimate ones.

As regards the commendable attempt to restrict the dissemination of venereal diseases, which is the essential motive of the laws just cited, it seems probable that this end would be more advantageously effected by comprehensive sanitary laws placing all venereal diseases on a par with other contagious maladies; requiring all cases of such diseases to be reported to the Health Boards; and inflicting severe penalties on all persons who knowingly transmit these diseases.

Such a sanitary code would obviously be difficult of carrying out, but the great strides that public hygiene has made in recent years warrant the hope that such measures as those just suggested will before long be thought worthy of trial everywhere. It seems more logical to endeavor to stamp out these virulently contagious and heritable maladies at their source than merely to attempt to guard a single avenue among many through which they may be transmitted.

Nevertheless, the placing on the statute books of several states of laws of the character just noted may be taken as marking a very notable stage in the progress of the eugenic propaganda.

Positive Eugenics

All the measures thus far suggested obviously look to the restriction of the breeding of the unfit, and leave quite untouched the converse side of

the problem—namely, the stimulation of the reproductive activities of the fit. But we have already called attention to the familiar fact that there is a great dearth of children among precisely the classes who are best adapted, through heredity and through the environment that their homes supply, to furnish desirable citizens of the next generation.

It is obvious, however, that any attempt to regulate the size of the families of the better classes of society lies far beyond the bounds of present-day legislation. The time may come when special bonuses will be offered in the way of exemption from taxation or direct government subsidy for large families. Such an expedient is not without historical precedent. But it may safely be predicted that if it should ever seem necessary to resort to so extreme a measure in any civilized community of the future, the provision will not be indiscriminate in its application, but will apply to a restricted portion of the community, the favored couples being such as adequately meet conditions imposed by a eugenic board having a fuller knowledge of heredity, perhaps than any one at present possesses.

Materials for such enhanced knowledge are being gathered, however, by the Eugenics Record Office at Cold Spring Harbor, and it is within the

possibilities that enough family genealogies, collated from a new point of view, will be available in the course of another decade or two to give data for a new type of pedigreed-stock book, of which human being will be the subjects.

Such a suggestion probably seems grotesque to the average reader; even to the reader who has gained a certain inkling of the laws of heredity. Yet a serious consideration of the facts as to the increase of population in recent decades, coupled with reflections on the *character* of the increase, justifies the prediction that legislative measures based on such knowledge will furnish the basis for marriage customs that will become a matter of everyday routine in the not very distant future.

We hear much clamor about race suicide; and when a nation like France fails to increase in population as rapidly as its neighbors, the wiseacres shake their heads and talk about national degeneracy. Yet it is known that the population of Christendom has doubled in the past half century, and it is a matter of the simplest computation to show that if this rate of increase were to continue there would not be standing room in the world for the human population in the year 4000 A. D. If the population of the United States were to increase as rapidly in the coming century as it has in the past century, starvation would stare the main body of our great-grandchildren in the face.

In a word, the great menace of the moment is not race suicide but race repletion.

And, as we have seen, it is the less desirable members of the race who are most prolific. Hence the human garden is in danger of being choked with human weeds. There is eminent need of cultivation akin to that which Mr. Burbank practises when he would improve a race of plants instead of allowing them to run wild and deteriorate.

Yet, as we said before, it must be admitted that at the present stage of social development no very definite remedies, on the side of positive eugenics, can be suggested as capable of immediate application. The most that can be hoped, perhaps, is that knowledge of the laws of heredity may be spread broadcast, until the average intelligent citizen is sufficiently informed to have logical opinions on this most important topic. When the time comes that a larger number of cultivated men and women have as comprehensive a knowledge of heredity as is now possessed by a small number of breeders of plants and special types of domesticated animals; and when the public at large realizes that the same laws of heredity apply to man as to all his fellow beings, we shall be prepared to consider the possibility of measures looking to the betterment of the human breed through

conscious direction of a type not very different from that which has resulted in the development of specialized races of horses and cattle and others of man's confrerers.

Incidentally, we may add that it is largely with the thought of aiding in the promulgation of knowledge that must underlie such an advance, that the present series of monographs is put forth.

The Province of Euthenics

In the meantime, it fortunately chances that the obverse side of the question of breeding a better race can be considered with far less infringement on the prejudices of mankind in general; partly because the questions involved are not at first thought recognized as having eugenic significance. Reference is made, of course, to the active movements of recent years in the way of bettering the environment of the individuals and the communities of our generation. The work that has already been accomplished in this regard is little less than revolutionary. Its effects must be strikingly manifest on the coming generations.

It is unnecessary here to refer, except in the most general way, to the sanitary reforms in question. Everyone knows something of the enheartening story of how light is being let into the dark tenement dwellings of our cities; how sanitary

guard is now kept over the food supplies, including in particular the all-essential milk supply; how preventive medicine has learned to guard our ports against the invasion of plagues and to minimize the spread of the contagious maladies by warring upon the mosquitoes and flies and rats that serve as germ-carriers.

It is familiar knowledge, also, that medical science has found means to treat individuals suffering from contagious maladies, and in particular to give immunity to others through serum and vaccine treatments, the discovery of which has resulted from the new knowledge of bacteriology.

All in all, the work of preventive medicine has been so effectively carried forward that the death-rate in our cities has decreased, particularly as it concerns the infant population, to a fraction of what it was. The average age of mankind has been practically doubled since the time of our grandparents.

All this is matter for just pride and enthusiasm to the humanitarian. Yet from the standpoint of the eugenist, it appears that these triumphs of preventive medicine do not represent an altogether unmixed blessing. Looked at with a coldly analytical eye, it appears that the preservation of weakly infants through what may be likened to a hothouse cultivation, must enhance the

number of adult members of the population of the coming decades who are peculiarly unfit to propagate the species.

In other words, it would appear that the first notable result of the recent betterment in the practice of euthenics must be to complicate the problem of the eugenist.

From the present standpoint, we could hardly fail to recall that the work of the modern hygienist is directly in oppostion to the method that Mr. Burbank has so persistently practised at Santa Rosa in dealing with the weakly and susceptible members of his plant colonies.

From the outset, the theory on which he has worked, and worked to such advantage, has been that the best protection to his plant charges against the disease with which they are menaced must come from within the constitution of the plants themselves. So he has sought to develop immune races. He has not been sedulous to find remedies for plant diseases, and he has almost totally avoided the use of sprays and medicants to kill off the fungous and bacterial enemies. His habit has been to check disease by weeding out and destroying the seedlings that showed susceptibility to disease.

The hardy individuals that remain owe their preservation to the fact that their tissues were able

to fight off the inimical germs; and it was observed that such immunity is a heritable trait, so that the individuals possessing it become the parents of an immune race.

It might seem, then, that the method of the modern hygienist is a direct contravention of the method which the plant developer has found advantageous. A strict application of Mr. Burbank's method to the human plant would suggest that we lessen rather than increase the safeguards against bacterial foes that surround the average child. The individual that is susceptible should, in this view, be permitted to succumb, in the interest of the race.

Of course, no humanitarian can give assent to such a literal application of the knowledge of the plant breeder. Mr. Burbank himself would be the last to suggest such an application. We must recall that the aggregate conditions of civilization are artificial in the highest degree; that civilized man is and must everywhere remain a hothouse plant. The essential province of government is to give the weak protection against the strong, and against the adverse forces of nature.

The manners and customs of civilized society have been built up in recognition of the fact that persons weak-bodied and susceptible to disease may have attributes of mind that make them among the most valuable members of society.

Civilized man is not reared to compete with the denizens of the jungle, nor to submit to the hardships that may fall to the lot of barbaric tribes. His case is rather that of the tropical plant transported to temperate zones, which may require the constant protection of a hothouse environment, being quite unable to compete with plants of the field, yet being prized for the flowers that it puts forth, and regarded as fully worth the solicitous care necessarily bestowed upon it.

Viewed in this light, the work of the euthenist who seeks to better the environment of the race takes on a quite different aspect. The physical weakling that is saved from an early demise only by a pampering environment may prove an intellectual giant—a Newton, a Darwin, a Spencer—of greater benefit to the world than any conceivable number of physical giants.

In a word, the fact that man is essentially an intellectual animal must be borne in mind at all stages of consideration of the problems of the eugenist.

Yet the fact remains that the intellect of man is bound up with his physical organization; and it would be absurd to deny that the problem of the eugenist is primarily a physical one, even though it deals also with the mental organization. The ideal man must be sound of body as well as

sound of mind; and the ultimate problem of the eugenist is, how to give us a race of human beings which shall combine in the fullest measure physical vigor and mental vigor. "A sound mind in a sound body," was the familiar maxim of the ancient Greeks; and it represents no less fully the ideal of the eugenist of today.

If the work of the euthenist preserves a certain number of weaklings who might perhaps, in a coldly critical view, be regarded as undesirables, it preserves also thousands of children who will grow into robust and vigorous adults. We have already suggested that even those who remained physical weaklings may have mental qualities that far outbalance their physical defects. Such physical weaklings with wonderful brains may have their strains blended with the strains of other individuals of robust physique, with the result of developing progeny showing an ideal blending of physical and mental qualities.

So in the last analysis it appears that the work of the euthenist is in fullest harmony with that of the eugenist.

Or, better stated, euthenics is but an aspect of the larger problems of eugenics. The ultimate object at which they both aim is the development of a race of human beings representing as close an approximation as may be to physical and mental perfection.

And when we add that such ideal personalities command the instinctive admiration of mankind in general (witness the universally applauded heroes and heroines of stage and story), it requires no further argument to show that in their ultimate influence eugenics, euthenics, and normal love between the sexes are linked in a triumvirate at once harmonious and beneficient.

Human Life Improvement Series

TITLES OF MONOGRAPHS
now in course of preparation by
The Luther Burbank Society
to be issued Monthly.

1. Seven Ambitious Brothers—and How They Bred a Race of Kings.
2. The Laws of Heredity—Their Definite Meaning and Interpretation.
3. The Power of Environment—Nurture versus Nature.
4. Eugenics, Euthenics and Love—How They Go Hand in Hand.
5. Choosing Our Children.
6. Bringing Up the Normal Child.
7. What To Do With the Sub-normal Child.
8. Mental Obliquities—How Caused and How Remedied.
9. Heredity and The Criminal—Is There a Criminal Type?
10. Adding Years to Our Lives Through Environment.
11. Better Brains for the Race—Some Practical Observations on Mental Hygiene.
12. America—The Racial Melting Pot.

These monographs are not for sale. They are issued for distribution to members of The Luther Burbank Society, and to others only on recommendation of members

WELLCOME
LIBRARY
P
13622